

WebSphere Edge Components

Course Summary

Description

The IBM WebSphere Edge Components include several components residing at the "edge" of the network. They can work with pure web servers or with WebSphere Application Servers at the backend.

One component is the Dynamic Load Balancer. One part of the Load Balancer, the Network Dispatcher, uses an Advisor daemon at each server to determine current load on the server machine. It uses this information to dynamically redirect client access to the least busy machine. The Load Balancer interfaces with popular routers such as Cisco and Nortel. The Load Balancer also includes Content Based Routing (CBR) which routes client requests to an appropriate group of servers based on the URL content. This allows different servers to handle different parts of the web application.

Another component is the Caching Proxy which is suitable for either a Forward Proxy, between the client browser and the internet, or a Reverse Proxy, between the internet and the servers. This can work with a CBR plug-in component for content-based routing.

The Site Selector component is the equivalent of an intelligent DNS server for relaying requests to back-end servers.

Objectives

At the end of this course, students will be able to:

- Plan for a successful deployment of the Edge Components
- Install and configure the Edge Component as a Forward (or client) Proxy
- Install and configure the Edge Component as a Reverse (or server) Caching Proxy
- Tune the Caching Proxy
- Install and configure the Network Dispatcher
- Install and configure Content Based Routing (CBR)
- Install and configure the Site Selector Component
- Administer and Troubleshoot the Load Balancer

Topics

- Planning and Installation
- Getting Started with the Caching Proxy
- Configuring and Tuning the Caching Proxy
- Configuring the Caching Proxy Behavior
- Configuring Proxy Server Caching
- Configuring Proxy Server Security
- Monitoring the Caching Proxy
- Network Dispatcher Component
- Content Based Routing (CBR)
- Site Selector Component
- Advanced Features of the Load Balancer
- Administering and Troubleshooting Load Balancer

Audience

This course is designed for system administrators, consultants, software architects and enterprise application developers

Prerequisites

Students should have experience with administering WebSphere Application Server 6.x.

Duration

Five days

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Course Outline

I. Planning and Installation

- A. Overview of WebSphere Edge Components
- B. Hardware and Software Requirements
- C. Planning
- D. Installation

II. Getting Started with the Caching Proxy

- A. Using the Configuration Wizard
- B. Manually editing the ibmproxy.conf file
- C. Starting and stopping the Caching Proxy

III. Configuring and Tuning the Caching Proxy

- A. Define the Server
- B. Manage Connections
- C. Tune the Proxy Server Process

IV. Configuring the Caching Proxy Behavior

- A. Manage request processing
- B. Manage delivery of local content
- C. Manage FTP connections
- D. Customize server processing
- E. Configure header options

V. Configuring Proxy Server Caching

- A. Configuring basic caching
- B. Controlling what is cached
- C. Maintaining cache content
- D. Configuring the cache agent for automatic refreshing and preload
- E. Using a shared cache
- F. Caching dynamically generated content
- G. Tuning the proxy server cache

VI. Configuring Proxy Server Security

- A. About Proxy Server security
- B. Server Protection setups
- C. Secure Sockets Layer (SSL)

VII. Monitoring the Caching Proxy

- A. Configuring Logging
- B. Using the Server Activity Monitor
- C. Introducing Load Balancer
- D. Overview of the components of Load Balancer
- E. Managing your Network
- F. Installing Load Balancer

VIII. Network Dispatcher Component

- A. Quick start configuration
- B. Planning for the Dispatcher component
- C. Configuring the Dispatcher component

IX. Content Based Routing (CBR)

- A. Quick start configuration
- B. Planning for the Content Based Router
- C. Configuring the Content Based Router

X. Site Selector Component

- A. Quick start configuration
- B. Planning for the Site Selector Component
- C. Configuring the Site Selector Component

XI. Advanced Features of the Load Balancer

- A. Manager, Advisor daemons, and Optimization
- B. Dispatcher, CBR, and Site Selector

XII. Administering and Troubleshooting Load Balancer

- A. Operating and Managing Load Balancer
- B. Troubleshooting Load Balancer